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(54) **SCALABLE HIERARCHICAL DATA-DRIVEN
NAVIGATION SYSTEM AND METHOD FOR
INFORMATION RETRIEVAL**

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(57) **ABSTRACT**

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(51) **Int. Cl.**
G06F 17/30 (2006.01)

(52) **U.S. Cl.** **707/3; 707/6; 707/10; 707/102**

(58) **Field of Classification Search** **None**
See application file for complete search history.

(56) **References Cited**

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A data-driven, hierarchical information navigation system and method enable search of sets of documents or other materials by certain common attributes that characterize the materials. The invention includes several aspects of a data-driven, hierarchical navigation system that employs this navigation mode. The navigation system of the present invention includes features of an interface, a knowledge base and a taxonomy definition process and a classification process for generating the knowledge base, a graph-based navigable data structure and method for generating the data structure, World Wide Web-based applications of the system, and methods of implementing the system. Users are able to search or browse a particular collection of documents by selecting desired values for the attributes. A data-driven, hierarchical information navigation system and method enable this navigation mode by associating terms with the materials, defining a set of hierarchical relationships among the terms, and providing a guided search mechanism based on the relationship between the terms. In another aspect of the invention, implementations of the invention may be scalable through parallel or distributed computation. Implementations of the invention may employ master and slave servers in a hierarchical configuration.

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42 Claims, 21 Drawing Sheets

